

Patent

Attorney's Docket No. 001560-387

#13
B. Webb
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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

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In re Patent Application of)

Keiko SAKAKIBARA et al)

Group Art Unit: 1655

Application No.: 09/673,300)

Examiner: Juliet Einsmann

Filed: October 16, 2000)

For: GENES ENCODING PROTEINS)
HAVING ACTIVITY OF)
TRANSFERRING SUGAR ONTO)
AURONES)

RESPONSE TO RESTRICTION REQUIREMENT

Assistant Commissioner For Patents
Washington, D.C. 20231

Sir:

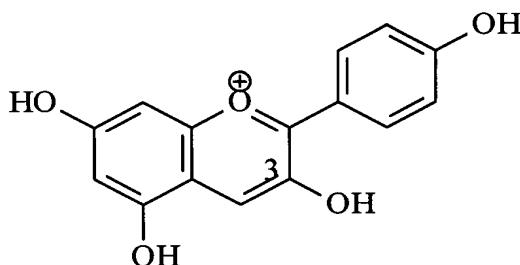
In complete response to the Requirement for Restriction issued by the Patent and Trademark Office on July 17, 2001, applicants hereby elect with traverse the invention of Group I, claims 1-6, 9 and 10 for prosecution in this application. Applicants further elect SEQ ID NO: 1 (DNA sequence encoding enzyme of *Antirrhinum majus*). Group I is directed to nucleic acids encoding a protein having an activity of transferring a glycosyl group to aurones as well as vectors, host cells, and transgenic plants.

The traversal is based upon the fact that the instant application was filed under §371. Applicants are thus entitled to a "unity of invention standard" for determining restriction. It is respectfully submitted that "unity of invention" exists in the instant case. Group I is drawn to nucleic acids encoding a protein having an activity of transferring a

glycosyl group to aurones as well as vectors, host cells, and transgenic plants. Group II is drawn to proteins having an activity of transferring a glycosyl group to aurones. Group III is drawn to methods of making proteins having an activity of transferring a glycosyl group to aurones. Group IV is drawn to methods of stabilizing aurones in plants.

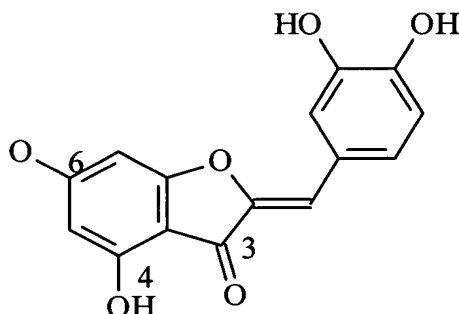
The Examiner states that Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because the invention of group I purportedly has no special technical feature that defines the contribution over the prior art of Schwinn et al (*Plant Science* 125:53-61 (1997)). Applicants respectfully disagree.

The *Antirrhinum majus* UDP-glucose:flavonoid-3-*O*-glucosyltransferase (UFGT) disclosed in Schwinn et al transfers a glucosyl group to the OH group at the 3 position of a flavonoid molecule.



FLAVANOID MOLECULE

In contrast, the enzymes of the present invention transfer a glucosyl group to the 4 and 6 positions of an aurone molecule, as shown in the following compound.



AURONE MOLECULE

It should be noted that the aurone has a keto group at the 3 position, and the present enzyme cannot transfer a glucocyl group to the 3 position of the aurone. Therefore, the present enzyme is not the same as the Schwinn et al enzyme, and Group I does have a special technical feature that defines the contribution of the present invention over the prior art.

Moreover, according to the MPEP § 803, a restriction between patentably distinct inventions is proper only where there is a serious burden on the Examiner to examine all the claims in a single application. This is true even when appropriate reasons exist for a restriction requirement.

In the present application, it is believed that because there is a close relationship between the subject matter of the four sets of claims, there would be no serious burden on the Examiner to examine all the claims at this time.


In view of the above, it is respectfully requested that the restriction requirement be withdrawn or at the very least altered.

In the event that there are any questions relating to this amendment or the application in general, it would be appreciated if the Examiner would contact the undersigned attorney.

Early and favorable action in the form of a notice of allowance is respectfully requested.

Respectfully submitted,

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